

CLAIMS:

1. A driven pulley system for use in a torque converter of a vehicle, the driven pulley system comprising
 - 5 a motion-transmitting fixed unit arranged to be fixed to a rotatable output shaft of the vehicle for rotation therewith to transmit motion between the output shaft and a belt included in the torque converter, the fixed unit including a fixed flange and a removable cam mounted to the fixed flange, and
 - a belt-tensioning movable unit arranged for movement relative to the
 - 10 fixed unit to tension the belt, the movable unit including a movable flange and a cam follower, the fixed flange and the movable flange cooperating to receive the belt therebetween for engagement therewith, the cam follower being arranged to follow the cam to cause rotation of the movable flange relative to the fixed flange to tension the belt upon axial movement of the movable flange away from the fixed flange, the
 - 15 fixed and movable units cooperating to provide means for allowing detachment of the cam from the fixed flange to remove the cam from the driven pulley system without additional disassembly of the driven pulley assembly.
2. The driven pulley system of claim 1, wherein the fixed flange includes a fixed flange channel, the movable flange includes a movable flange
- 20 channel, and the cam extends through the fixed flange channel into the movable flange channel.
- 3 The driven pulley system of claim 1, wherein the fixed flange includes an axially outer side, an axially inner side positioned between the axially
- 25 outer side and the movable flange, and a fixed flange channel extending from the axially outer side to the axially inner side, the cam includes a cam-body mount mounted to the axially outer side and a cam body mounted to the cam-body mount and extending through the fixed flange channel.
4. The driven pulley system of claim 3, wherein the fixed and
- movable units do not cover the cam-body mount axially outwardly therefrom to
- 30 facilitate access thereto for removal of the cam from the driven pulley system.
5. The driven pulley system of claim 3, further comprising a spring, wherein the movable unit includes a spring positioner arranged to retain the

spring between the spring positioner and the fixed flange and the cam-body mount is positioned radially outwardly from the spring and the spring positioner.

6. A driven pulley system for use in a torque converter of a vehicle, the driven pulley system comprising

- 5 a motion-transmitting fixed unit arranged to be fixed to a rotatable output shaft of the vehicle for rotation therewith to transmit motion between the output shaft and a belt included in the torque converter, the fixed unit including a fixed flange and a removable cam mounted to the fixed flange, and
- 10 a belt-tensioning movable unit arranged for movement relative to the fixed unit to tension the belt, the movable unit including a movable flange and a cam follower, the fixed flange and the movable flange cooperating to receive the belt therebetween for engagement therewith, the cam follower being arranged to follow the cam to cause rotation of the movable flange relative to the fixed flange to tension the belt upon axial movement of the movable flange away from the fixed flange, the
- 15 fixed and movable units being arranged to allow detachment of the cam from the fixed flange to remove the cam from the driven pulley system without additional disassembly of the driven pulley assembly.

7. The driven pulley system of claim 6, wherein the fixed flange includes a fixed flange channel and the cam extends through the fixed flange channel.

- 20 8. The driven pulley system of claim 7, wherein the movable flange includes a movable flange channel and the cam extends into the movable flange channel.

9. The driven pulley system of claim 7, wherein the fixed flange includes an axially outer side and an axially inner side positioned between the axially
- 25 outer side and the movable flange, the fixed flange channel extends from the axially outer side to the axially inner side, and the cam includes a cam-body mount mounted to the axially outer side for removal therefrom and a cam body that is mounted to the cam-body mount and extends through the fixed flange channel for engagement with the cam follower.

- 30 10. The driven pulley system of claim 9, wherein the movable flange includes a movable flange channel and the cam body is arranged to extend into and engage the movable flange channel to limit rotation of the cam away from the cam follower due to an increased rotation rate of the output shaft.

11. The driven pulley system of claim 9, wherein the cam-body mount is C-shaped.

12. The driven pulley system of claim 9, further comprising a spring, wherein the movable unit includes a spring positioner and a cam-follower mount, the spring positioner is arranged to retain the spring between the spring positioner and the fixed flange, the cam-follower mount is mounted to the movable flange, the cam follower and the spring positioner are mounted to the cam-follower mount, the spring positioner and the cam-follower mount are positioned radially inwardly from the cam, and at least one of the spring positioner and the cam-follower mount is positioned in the fixed flange channel.

13. The driven pulley system of claim 6, further comprising a spring, wherein the movable unit includes a spring positioner arranged to retain the spring between the spring positioner and the fixed flange, and the cam is positioned radially outwardly from the spring and the spring positioner.

14. The driven pulley system of claim 6, wherein each of the fixed flange and the movable flange includes a channel, the cam includes a cam body which the cam follower is arranged to follow, a C-shaped support member, and a fastener fastening the support member to an axially outer side of the fixed flange, and the cam body is mounted to and extends axially inwardly from the support member into each of the channels.

15. A driven pulley system for use in a torque converter of a vehicle, the driven pulley system comprising

a motion-transmitting fixed unit arranged to be fixed to a rotatable output shaft of the vehicle for rotation therewith to transmit motion between the output shaft and a belt included in the torque converter, the fixed unit including a fixed flange and a cam, the fixed flange including an axially outer side, an axially inner side, and a fixed flange channel extending from the axially outer side to the axially inner side, and

a belt-tensioning movable unit arranged for movement relative to the fixed unit to tension the belt, the movable unit including a movable flange positioned axially inwardly from the fixed flange and a cam follower, the fixed flange and the movable flange cooperating to receive the belt therebetween for engagement therewith, the cam follower being arranged to follow the cam to cause rotation of the

movable flange relative to the fixed flange to tension the belt upon axial movement of the movable flange away from the fixed flange, the cam being mounted to the axially outer side of the fixed flange and extending through the fixed flange channel for engagement with the cam follower.

5 16. The driven pulley system of claim 15, wherein the fixed and movable units are arranged to allow detachment of the cam from the axially outer side to remove the cam from the driven pulley system without additional disassembly of the driven pulley system.

10 17. The driven pulley system of claim 15, wherein the movable flange includes a movable flange channel and the cam extends into the movable flange channel.

15 18. The driven pulley system of claim 15, further comprising a spring, wherein the movable unit includes a spring positioner arranged to retain the spring between the spring positioner and the fixed flange and the cam is positioned radially outwardly from the spring and the spring positioner.

20 19. The driven pulley system of claim 15, wherein the cam includes a cam-body mount and a cam-body mounted to the cam-body mount, the cam-body mount is mounted to the axially outer side, and the cam body extends axially inwardly from the cam-body mount through the fixed flange channel for engagement with the cam follower.

20 20. The driven pulley system of claim 19, wherein the fixed and movable units do not cover the cam-body mount axially outwardly from the cam-body mount.